

CLAIMS

- 1 1. A method for the investigation of patterns in collections of peak-containing data
2 strings or lists of peaks, the method comprising the following steps:
3 (a) displaying the data of the collections of data strings or peak lists in graphical
4 form,
5 (b) calculating significant patterns, correlations or classifications within one or
6 between different collections of data strings or peak lists by pattern recognition
7 algorithms, thereby including a determination of the peaks significantly
8 participating in the pattern generation, and
9 (c) highlighting, in the graphical display of the data strings or peak lists, the peaks
10 significantly participating in the pattern generation.
- 1 2. A method according to Claim 1 wherein the data strings are displayed, in step (a),
2 by a density plot.
- 1 3. A method according to Claim 1 wherein features of the graphical display are
2 interactively accessible.
- 1 4. A method according to Claim 3 wherein an ensemble of start peaks for pattern
2 recognition programs can be selected from the display.
- 1 5. A method according to Claim 3 wherein peaks to be compulsory included in the
2 result list of significant peaks by pattern recognition programs can be selected on
3 the display before the pattern recognition programs are started.
- 1 6. A method according to Claim 3 wherein, after pattern recognition, by selecting a
2 peak on the display, more information is shown with respect to the peak's
3 participation in the pattern generation.

- 1 7. A method according to Claim 1 wherein the intensity values of the data strings
- 2 are transformed by a filter before the pattern recognition algorithm is applied.